TABLE 2

Diesel Engine Wear Test Results

Engine Test	Coating	Ring[1] (microns)	Cylinder Liner[1] (microns)
Example 6	Example 1	3.0	5.0
Example 6	Example 3	6.0	32.0
Example 7	Example 1	7.6	1.7
Example 7	Example 3	11.4	31.2
Example 8	Example 1	6.3	11.6
Example 8	Example 3	9.1	40.6
Example 8	Example 5	10.9	11.7
Example 9	Example 1	9.4	11.2
Example 9	Example 2	12.2	31.3
Example 9	Example 3	11.1	20.8
Example 9	Example 4	24.0	21.9

Notes:
[1]Average of four or eight measurements around ring or liner periphery

It is to be understood that the above description is intended to be illustrative and not limiting. Many embodiments will be apparent to those of skill in the art upon reading the above description. Therefore, the scope of the invention should be determined, not with reference to the above description, but instead with reference to the appended claims, along with the full scope of equivalents to which such claims are entitled. The disclosures of all patents, articles and references, including patent applications and publications, are incorporated herein by reference in their entirety and for all purposes.

What is claimed is:

1. A wear resistant coating for protecting a surface, the wear resistant coating applied by high velocity oxygen-fuel deposition of a powder, the powder comprising a blend of:

about 18 wt. % to about 35 wt. % of a nickel-chromium alloy;

about 35 wt. % to about 53 wt. % chromium carbide; and

about 15 wt. % to about 50 wt. % molybdenum,

wherein chromium from the nickel-chromium alloy is at least 7.2 wt. % of the blend.

2. The wear resistant coating of claim 1, wherein the powder comprises a blend of:

about 28 wt. % of the nickel-chromium alloy;

about 42 wt. % chromium carbide; and

about 30 wt. % molybdenum.

3. The wear resistant coating of claim 1, wherein the powder comprises a pre-alloyed blend of nickel-chromium alloy and chromium carbide.

4. The wear resistant coating of claim 1, wherein the chromium carbide component of the powder comprises Cr_7C_3 and $Cr_{23}C_6$.

5. A piston ring comprising an annular body having an outer radial periphery, the outer radial periphery having a wear resistant coating applied by high velocity oxygen-fuel deposition of a powder, the powder comprising a blend of:

about 18 wt. % to about 35 wt. % of a nickel-chromium alloy;

about 35 wt. % to about 53 wt. % chromium carbide; and

about 15 wt. % to about 50 wt. % molybdenum,

wherein chromium from the nickel-chromium alloy is at least 7.2 wt. % of the blend.

6. The piston ring of claim 5, wherein the powder comprises a blend of:

about 28 wt. % of the nickel-chromium alloy;

about 42 wt. % chromium carbide; and

about 30 wt. % molybdenum.

7. The piston ring of claim 5, wherein the powder comprises a pre-alloyed blend of nickel-chromium alloy and chromium carbide.

8. The piston ring of claim 5, wherein the chromium carbide component of the powder comprises Cr_7C_3 and $Cr_{23}C_6$.

9. A wear resistant coating for protecting a surface, the wear resistant coating applied by high velocity oxygen-fuel deposition of a powder, the powder comprising a blend of:

about 28 wt. % of a nickel-chromium alloy;

about 42 wt. % chromium carbide; and

about 30 wt. % molybdenum.

10. A piston ring comprising an annular body having an outer radial periphery, the outer radial periphery having a wear resistant coating applied by high velocity oxygen-fuel deposition of a powder, the powder comprising a blend of:

about 28 wt. % of a nickel-chromium alloy;

about 42 wt. % chromium carbide; and

about 30 wt. % molybdenum.

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